

**Notice of Allowability**

Application No.

10/645,084

Examiner

DANIEL G. MARIAM

Applicant(s)

MORENO ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amdt. filed on 2/5/07, and a telephone interv. dated 4/23/07.
2. ☒ The allowed claim(s) is/are 1, 4-10 and 13-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☒ Interview Summary (PTO-413), Paper No./Mail Date 4/23/2007.
- ☒ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other \_\_\_\_\_



## **EXAMINER'S AMENDMENT AND REASONS FOR ALLOWANCE**

### **Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mary Lou Wakimura (Reg. No. 31,804) on April 23, 2007.

The application has been amended as follows:

Cancel claims 2, 3, 11, and 12.

Amend claim 1 as follows:

At line 6, after the limitation "object" insert ", wherein the step of using the generative model further includes the steps of: calculating a distance from the respective generative model to any other generative models based on a distance metric, wherein the distance metric includes any one of Kullback-Leibler type distances and Arithmetic-Harmonic Sphericity distance; and using the calculated distance to classify, identify or verify the object"

Amend claim 4 as follows:

At line 4, delete "2" and replace it with "1"

Amend claim 10 as follows:

At line 8, after the limitation "model" ", wherein the determination module further calculates a distance from the respective generative model to any other generative model

based on a distance metric, wherein the distance includes at least one of Kullback-Leibler divergence and Arithmetic-Harmonic Sphericity distance, and uses the calculated distance to classify, identify or verify the object”

Amend claim 13 as follows:

At line 1 delete “11” and replace it with “10”

Amend claim 18 as follows:

At line 6, after the limitation “model” insert “, wherein the means for determining calculates a distance from the respective generative model to any other generative model based on a distance metric, wherein the distance metric includes any one of Kullback-Leibler type distances and Arithmetic-Harmonic Sphericity distance, and uses the calculated distance to classify, identify or verify the object”

Amend claim 20 as follows:

At lines 1-4, delete the limitation “: the means for determining calculates a distance from the respective generative model to any other generative model based on a distance metric and uses the calculated distance to classify, identify or verify the object; and”

#### **Reasons for Allowance**

2. Claims 1, 4-10, and 13-20 are allowed. The claims will be renumbered as 1-16.
3. The following is an examiner’s statement of reasons for allowance: the closest prior art of Moreno, et al (including the newly surfaced prior art of Noble: 2005/0100992) does not disclose or fairly suggest, among other things, using the generative model for calculating a distance from the respective generative model to any other generative models based on a distance metric, wherein the distance metric includes any one of Kullback-Leibler type (or divergence) and

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Arithmetic-Harmonic Sphericity distances, and using the calculated distance to classify, identify or verify the object. It is for this reason and in combination with all of the other elements of the claims that claims 1, 4-10 and 13-20 are allowed over the prior art of Moreno, et al and Noble.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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DANIEL G MARIAM  
Primary Examiner  
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April 23, 2007